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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,866	12/18/2005	Charalampos Kosmas	5012,1013	6451
23280	7590	03/21/2008		
Davidson, Davidson & Kappel, LLC 485 7th Avenue 14th Floor New York, NY 10018			EXAMINER	
			ELDRIDGE, JOHN W	
			ART UNIT	PAPER NUMBER
			3641	
MAIL DATE	DELIVERY MODE			
03/21/2008	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,866	<b>Applicant(s)</b> KOSMAS, CHARALAMPOS
	<b>Examiner</b> John Woodrow Eldred	<b>Art Unit</b> 3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 9-16 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 9-16 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement (PTO/SE/08)  
 Paper No(s)/Mail Date 06172005
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9, 10, 15, and 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kaplan et al (4,030,102).

Kaplan et al disclose an actuator apparatus for deployment on a spacecraft comprising all claimed elements including a base unit 16; a plurality of connection tapes 20; an “action element” 10, 34; winding reel units 18 connecting the tapes to the base unit; and a light reflector on the action element (column 2, lines 3-6).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dailey et al (5,857,648) in view of Bischof et al (7,207,525).

Dailey et al disclose an actuator arm or boom assembly 10 on a spacecraft comprising a base unit 16; a plurality of connection cables 30; an “action element” 18, 12 connected to the base unit by the cables; winding reels 28 connecting the cables to the base unit; reaction wheels to control the motion of the spacecraft (column 2, lines 7-8); and a

plurality of devices mounted on the end of the boom (column 3, lines 57-65). Dailey et al fail to show the cables as conductive tapes or having gripping means or a laser source attached to the assembly. Bischof et al teach that in a spacecraft cable deployed actuator arm it is known to have conductive (i.e. metal) tapes as the cables (column 1, lines 49-53) and to have gripping means 1 and laser distance measuring means 37 (column 4, lines 33-37) mounted on the actuator apparatus. Combination of the references is based on the simple substitution of known elements to obtain predictable results; such as substitution of the metal tape cables for deploying the apparatus; and substitution of the gripper unit and laser means for the instruments of Dailey et al in order to perform the predictable functions of gripping desired objects or providing control information, respectively. To employ the teachings of Bischof et al on the actuator arm of Dailey et al and have conductive tapes, grippers, or lasers on the apparatus is considered to have been obvious to one having ordinary skill in the art.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Woodrow Eldred whose telephone number is (571)272-6901. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Woodrow Eldred/  
Primary Examiner  
Art Unit 3641

JWE